

AMENDMENTS TO THE CLAIMS**Listing of the Claims****Claims 1-36 (Cancelled)**

37. (New) A micron liquid thermosetting ink-jet ink comprising:

(a) at least one solid latent curing agent with a maximal particle size of less than 2 microns, said curing agent selected from a group including one of urea derivatives, imidazoles, dicyandiamide, inorganic boron salts, their precursors and/or any mixture thereof; and

(b) one or more epoxy resin; said ink is emphasized by a viscosity lower than 50 Cps at application temperature; a surface tension lower than 80 dyne/cm at application temperature; and, a glass transition temperature of said ink, in a cured form, greater than 120 °C.

38. (New) The liquid thermosetting ink-jet ink according to claim 37, wherein said ink is characterized by a viscosity which is lower than 20 Cps, at application temperature; surface tension ranging from 24 to 34 dyne/cm at application temperature, and glass transition temperature of cured ink of greater than 120°C.

39. (New) The liquid thermosetting ink-jet ink according to claim 37, especially adapted for solder mask in printed circuit boards.

40. (New) The liquid thermosetting ink-jet ink according to claim 37, especially adapted for bonding devices or components in electronic manufacturing.

41. (New) The liquid thermosetting ink-jet ink according to claim 37, especially adapted for printing of layers in the manufacturing of passive component capacitors and/or resistors

42. (New) The liquid thermosetting ink-jet ink according to claim 37, especially adapted for direct printing of conductive lines and features such as pads and/or bumps.

43. (New) The liquid thermosetting ink-jet ink according to claim 37, wherein a major portion of the epoxy-base resin comprises polymers selected from bisphenol S epoxy resins, diglycidyl terephthalate resin, heterocyclic epoxy resins, bixylenol epoxy resins, biphenol epoxy resins,

tetraglycidyl xlenoyl ethane resins, bisphenol A epoxy resins, hydrogenated bisphenol A epoxy resins, bisphenol F epoxy resins, brominated bisphenol A epoxy resins, Novolak epoxy resins, Novolak epoxy resins of bisphenol A, chelate epoxy resins, glyoxal epoxy resins, amino group-containing epoxy resins, rubber-modified epoxy resins, dicyclopentadiene phenolic epoxy resins, silicone-modified epoxy resins, heterocyclic ring containing polyepoxide such as tris (2, 3-Epoxy propyl) isocyanurate and epsilon-caprolactone-modified epoxy resins, or a mixture thereof.

44. (New) The liquid thermosetting ink-jet ink according to claim 37, additionally comprising impact modifiers and/or flexibilizers having rubbery moieties or blocks in their chain.

45. (New) The liquid thermosetting ink-jet ink according to claim 37, wherein the impact modifiers and/or flexibilizers are selected from elastomeric, oligomers comprising side or end groups, selected from amines, carboxyl, anhydride, epoxies; hydroxyls; wherein said functional terminated rubbers or rubber-like compositions comprising polybutadienes, , acrylonitrile-butadiene, styrene-butadiene, styrene-acrylate, ethylene-acrylate, hydrogenated polybutadienes, polyisoprenes, ethylene-propylene copolymers, polydimethyl siloxane elastomers, polysulfide, polyester, polyether, polyurethane, polyesteramide or any mixture thereof.

46. (New) The liquid thermosetting ink-jet ink according to claim 37, additionally comprising monomers and/or oligomers selected from styrene, acrylic or methacrylic acid and esters thereof; acrylated or methacrylated epoxies; acrylated or methacrylated urethanes; more specific the unsaturated monomers are selected from 2-hydroxyethyl acrylate, 2-hydroxypropyl acrylate, N-vinylpyrrolidone, methoxytetraethylene glycol acrylate, methoxypolyethylene glycol acrylate, polyethylene glycol diacrylate, N,N-dimethyl acrylamide, N-methylol acrylamide, N,N-dimethylaminopropyl acrylamide, N,N-dimethylaminoethyl acrylate, N,N-dimethylaminopropyl acrylate, melamine-acrylate, diethylene glycol diacrylate, triethylene glycol diacrylate, propylene glycol diacrylate, dipropylene glycol diacrylate, tripropylene glycol diacrylate, polypropylene glycol diacrylate, phenoxyethyl acrylate, tetrahydrofurfuryl acrylate, cyclohexyl acrylate, glycerin diglycidyl ether diacrylate, glycerin triglycidyl ether triacrylate, isoborneolyl acrylate, cyclopentadiene mono- or di-acrylate; polyfunctional acrylates of polyhydric alcohols such as hexane diol, trimethylol propane, pentaerythritol, ditrimethylol propane, dipentaerythritol, and tris-hydroxyethyl isocyanurate and of ethylene oxide or propylene oxide adducts thereof;

methacrylates corresponding to the acrylates enumerated above; and mono-, di-, tri-, and higher polyesters of polybasic acids with hydroxyalkyl (meth)acrylates, acrylated DGEBA epoxy, acrylated Novolac epoxy, acrylated polyurethane, acrylated polyester, acrylated polybutadiene, acrylated polyacrylate or any combination thereof.

47. (New) The liquid thermosetting ink-jet ink according to claim 37, additionally comprising photoinitiators and secondary thermal initiators adapted to initiate and cure unsaturated ingredients.

48. (New) The liquid thermosetting ink-jet ink according to claim 37, additionally comprising mineral fillers, having maximal particle size of about 2 micron in the final ink; wherein concentration ranges between about 1 to 30 % by weight.

49. (New) The liquid thermosetting ink-jet ink according to claim 48, wherein the mineral fillers are characterized by a maximal particle size of about 300 nm.

50. (New) The liquid thermosetting ink-jet ink according to claim 37, additionally comprising additives selected from surface active agents and/or colloid stabilizers, rheology modifiers, pigments and dyes, matting agents, solvents; co-solvents, diluents or any mixture thereof.

51. (New) The ink according to claim 50, wherein the solvents, co-solvents or diluents are volatile.

52. (New) The liquid thermosetting ink-jet ink according to claim 37, wherein said latent curing agent comprises an inert filler having maximal particle size of 2 microns; said curing agent is layered on the surface of said inert particle, deposited as crystals on its surface, impregnated in its porosity, or dispersed as small crystals in a dispersing agent layer on or in the inert particle surfaces.